

## Case Report: Acupuncture Treatment in Patient With Hypothyroidism and Oligoasthenoteratozoospermia

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### Abstract

Hypothyroidism has become a very common health problem worldwide. Common symptoms are: hair loss, fatigue, aversion to cold, dry skin, weight gain, muscle cramps, infertility and etc. In the Traditional Chinese Medicine (TCM) the main pathogenesis is Spleen-kidney yang deficiency. The treated patient is a 43 years old male diagnosed with hypothyroidism and oligoasthenoteratozoosperm. The patient has done 32 acupuncture treatments, once weekly in a period of two years. The patient was treated in a clinic for TCM and acupuncture by a doctor specialist in acupuncture. Points that were treated are Ashi points located on the neck (front and back). scalp and inner thigh and meridian points: DU20 (Bai Hui), GB20 (Feng Chi), DU14 (DaZhui), ST9 (Ren Ying), LI4 (He Gu), BL15 (XinShu), BL20 (PiShu), BL23 (Shen Shu), DU4 (Ming Men), RN6 (Qi Hai), RN4 (Quan Yuan), SP9 (Yin Ling Quan), ST36 (Zu San Li), SP6 (San Yin Jiao), KI3 (Tai Xi), LR2 (Tai Chong). Before and after the treatment were done several analysis for the thyroid hormones and sperm tests. After the treatments the results are amazing, showing normal results of the thyroid hormones and no presence of oligoasthenoteratozoosperm. Because of the hypothyroidism the patient was almost bald and after using the Ashi points on the scalp the patient now has a new grown hair. Acupuncture as a treatment for hypothyroidism and secondary complications can give very satisfying results with a high percentage of efficiency and success. The treatment is long-term and careful monitoring of the patient's condition is required.

**Keywords:** Acupuncture, Traditional Chinese Medicine, Treatment, Hypothyroidism, Oligoasthenoteratozoosperm

### Introduction

Hypothyroidism has become a very common health problem worldwide. Hypothyroidism is an endocrine disorder caused by deficit of hormone production by the thyroid gland. Common symptoms are: hair loss, fatigue, aversion to cold, dry skin, weight gain, muscle cramps and etc. [1] Hypothyroidism can be divided into primary and secondary. Primary hypothyroidism is most common and mostly occurs in women. The disease is induced by chronic inflammation of the thyroid gland. Very high levels of TSH (thyroid stimulating hormone) indicate presence of primary hypothyroidism and low levels of TSH are indication for secondary hypothyroidism. The presence of primary hypothyroidism may not be detectable except by blood analysis. [2]

The main problem is thought to be caused by deficiency of Qi, Yin and Yang in the Heart, Spleen and Kidney. When there is deficiency of Yang energy, the necessary vital energy cannot be produced for the body to function properly and thus the hypothyroidism symptoms result. [1] [2] [3] In the Traditional Chinese Medicine (TCM) the main pathogenesis is Spleen-Kidney Yang deficiency. Spleen-Kidney Yang deficiency can lead to edema, pain and visceral dysfunction. [4]

Lack of both Yin and Yang causes hypothyroidism, with symptoms as dry skin, dizziness, constipation, pale complexion and lethargy.[1] In the pattern of Spleen-Kidney Yang deficiency the main symptoms are: poor memory, lassitude, dizziness, sleepiness, tinnitus, aversion to cold, dry skin and hair, edema, constipation, irregular periods in women, impotence in men, pale tongue with tooth marks on the edges, white and sticky tongue coating and a deep/thin or deep/slow pulse. In the pattern of Heart-Kidney Yang deficiency the main symptoms are: sleepiness, palpitations, chest pain and congestion, feeling cold, pale tongue with white and slippery coating and deep and slow pulse. [3]

TCM offers acupuncture, Chinese herbs, moxibustion and cupping as treatment methods for hypothyroidism, which have proven their efficacy through the years. The aim of the treatment is to strengthen the affected organs, boost the Kidney Yang energy, increase the Yin and Yang energy in the Kidney, Spleen and Heart, improve the general health condition, remove the symptoms, regulate and balance the thyroid hormones and improve the endocrine function. [1] [4]

### **Case Report**

The treated patient is a 43 years old male diagnosed with hypothyroidism and oligoasthenoteratozoosperm. The patient was diagnosed 4 months before starting the acupuncture treatment. He was prescribed to take 100mg Eutirox from Monday to Friday and 75mg for the weekend. The patient and his partner was also trying to conceive for some time. The patient was treated with acupuncture at the same time for the both diagnoses. The patient has done 32 treatments, once weekly in a period of one year (12.10.2017-12.07.2018). The patient was treated in a clinic for TCM and acupuncture by a doctor specialist in acupuncture. In the treatment were used fine sterile disposable needles with dimensions 0.25 x 25 mm manufactured by Wuijuiang City Medical & Health Material Co., LTD. Points that were treated are Ashi points located on the neck (front and back), scalp and inner thigh and meridian points: DU20 (Bai Hui), GB20 (Feng Chi), DU14 (Da Zhui), ST9 (Ren Ying), LI4 (He Gu), BL15 (XinShu), BL20 (Pi Shu), BL23 (Shen Shu), DU4 (Ming Men), RN6 (QiHai), RN4 (Quan Yuan), SP9 (Yin Ling Quan), ST36 (Zu San Li), SP6 (San Yin Jiao), KI3 (Tai Xi), LR2 (Tai Chong).

Before and after the treatment were done several analysis for the thyroid hormones and sperm tests. After the treatments the results are amazing, showing normal results of the thyroid hormones and no presence of oligoasthenoteratozoosperm. Because of the hypothyroidism the patient was almost bald and after using the Ashi points on the scalp the patient now have a new grown hair. The dose of the Eutirox tablets for hypothyroidism was gradually reduced too.

On table 1 are shown the results from the analysis done for the thyroid hormones before, during and after the treatments. The patient has done 7 thyroid tests. The results are showing normalized levels of TSH, fT4, Anti-TPO and Anti-TG.

*Table 1. Thyroid hormone levels before and after the treatment*

Date	19.04.17	09.05.17	22.06.17	13.09.17	10.01.18	30.03.18	18.06.18
<b>TSH</b> <b>(0.3-3.6)</b>	16.9	14.3	7.07	5.42	4.76	8.88	4.11
<b>T3</b> <b>(76.3-220.8)</b>	124	/	/	/	/	82.5	/
<b>T4</b> <b>(4.5-12.6)</b>	7.03	/	/	/	/	/	/
<b>fT4</b> <b>(0.8-1.7)</b>	0.70	/	0.767	0.873	0.78	/	1.16
<b>Anti-TPO</b> <b>(1-16)</b>	/	180	/	139.1	363.8	113	75.4
<b>Anti-TG</b> <b>(5-100)</b>	/	871.4	/	563.9	315.2	202	86.9

On table 2 shown the results from the sperm tests done before and after the treatment.

The results from the test done before the treatment are showing sperms with a thick and cut middle part and elongated perform amorphous heads; Reduced sperm binding, low level of maturity and decreased physiological function of sperms; Low chance of fertilization. The conclusion of the sample is: oligoasthenoteratozoosperm, moderate degree of oligo zoosperm and leukocyte to sperm.

Results that is not included in table 2:

Anti-sperm bodies in seminal plasma – 168.56 U/ml (normal <60)

Hyaluronan Binding Assay (HBA) – 42.00 (good bonding >80%, middle-bound 60-80%, reduced bonding <60%).

Chlamydia Trachoma is IgG – 5.6 U/ml (N<20)

Chlamydia Trachoma is Ig A – 2.3 U/ml (N<20)

*Table 2. Sperm test results done before and after the treatment*

Date	03.12.16	22.06.18	Ref. Value
Appearance	White	Light gray opalescent viscose material	Light gray opalescent viscose material
Volume	2.0	1.6	> 1.5 ml
pH	/	8.0	> 7.2
Concentration	/	45.0	> 15x10 <sup>6</sup> ml
Total sperm count	low	72.0	> 39x10 <sup>6</sup> ml
Mobility	low	65% fast mobile 15% slow mobile 10% mobile in place 10% immobile	>32% fast and slow moving >40% total mobile
Morphology	1% with normal construction  99% with change of the morphology of the head  32% with angular flagella	90% with normal construction  5% with change of the morphology of the head  5% with angular flagella	With normal construction:  >14 with normal finding  5-14 with good prognosis  <4 with bad prognosis
Vitality	/	95% with intact membranes	>58% with intact membranes

<b>Leukocytes</b>	/	0.5	<2.0x10 <sup>6</sup> ml
<b>Liquefaction</b>	/	complete without presence of mucous filaments	
<b>Agglutination</b>	/	moderate degree	
<b>Viscosity</b>	/	normal	

The results from the test done after the treatment are showing ejaculate with complete liquefaction without the presence of mucous filaments, oligo zoosperm or as the no sperm is not detected (only moderate degree of agglutination of the sperm). The ejaculate is of a boundary volume and of a normal viscosity. No increased presence of leucocytes is observed.

Hypothyroidism has a big impact on the male infertility and affects the sperm parameters and the erectile function. Men with hypothyroidism have lower amount of morphologically normal sperms. This abnormality might be effect of the thyroid hormones on the sperm cytoskeleton. The sperms may have deformed heads and greatly reduced potential for fertilization. Also the motility is decreased and the levels of estradiol and testosterone are reduced. [5-8]

By the terms of TCM, in men with hypothyroidism with chronic Kidney Yang Qi deficiency infertility and impotence may manifest. [9] Therefore the a cupoints in the treatment are chosen with aim to help the patient to improve the thyroid and reproductive function, warm the meridians, remove the blockages, replenish the Yang Qi, tonify the Spleen and Kidney, remove Liver Qi stagnation, remove the phlegm, lift the clear Yang, warm the Kidney Yang and balance the Yin and Yang. [4] [10] [11] [12]

## Conclusion

Acupuncture as a treatment for hypothyroidism and secondary complications can give very satisfying results with a high percentage of efficiency and success. The treatment is long-term and careful monitoring of the patient's condition is required.

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